

As a below named inventor, I declare that:

My residence, Post Office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled .

The specification of which (check only one item below):

☒ is attached hereto

☐ was filed as United States Application Serial No. on  
and was amended on (if applicable)

☐ was filed as PCT international application number , on , and was  
amended under PCT Article 19 on (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate or 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate, on the same subject matter, having a filing date before that of the application on which priority is claimed:

<input type="checkbox"/>	<b>Country:</b>	<b>Application No.:</b>	<b>Filing Date:</b>
<input type="checkbox"/>	<b>NONE</b>		

I hereby claim the benefit under Title 35 United States Code § 119(e) and § 120 of any United States application(s) or 365(c) of any PCT international application designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35 United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37 Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<input checked="" type="checkbox"/>	<b>Provisional No.:</b>	60/419,187	<b>Filed:</b>	10/17/2002	<b>Status:</b>	Pending
<input type="checkbox"/>	<b>Application No.:</b>		<b>Filed:</b>		<b>Status:</b>	
	<b>PCT Application No:</b>		<b>Filed:</b>		<b>Status:</b>	
<input type="checkbox"/>	<b>NONE</b>					

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**Full Name of Inventor:** Scott R. Bickham

**Resident Address:** 69 East Fourth Street, Corning, NY 14830  
**Post Office Address:** same

**Citizenship:** U.S.A.

DATE: 6-30-03

Scott R. Bickham  
Scott R. Bickham

**Full Name of Inventor:** Gang Qi

**Resident Address:** 47A Joy Road, Milford, CT 06460  
**Post Office Address:** same

**Citizenship:** U.S.A.

DATE: 6/9/03

Gang Qi  
Gang Qi

**Full Name of Inventor:** David K. Smith

**Resident Address:** 905 Wild Dunes Circle, Wilmington, NC 28411  
**Post Office Address:** same

**Citizenship:** U.S.A.

DATE: 8/18/03

David K. Smith  
David K. Smith

**Full Name of Inventor:** William A. Wood

**Resident Address:** 240 West Water Street, Painted Post, NY 14870  
**Post Office Address:** same

**Citizenship:** U.S.A.

DATE: 6/30/03

William A. Wood  
William A. Wood

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): BICKHAM et al.

Serial No.: TBA

Filed: HEREWITH

For: LOW KAPPA, DUAL-MOTE DC  
FIBER AND OPTICAL  
TRANSMISSION LINE

COMBINED  
CERTIFICATE  
UNDER 37 CFR 3.73(b)  
and  
POWER OF ATTORNEY

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE UNDER 37 CFR 3.73(b)

**CORNING INCORPORATED**, a New York corporation, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of an assignment from the inventor(s) of the patent application identified above. A true copy of the unrecorded Assignment is attached hereto.

The undersigned has reviewed the above referenced assignment of the patent application identified above and, to the best of the undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

**POWER OF ATTORNEY BY ASSIGNEE**

CORNING INCORPORATED, the assignee of the full and exclusive right, title and interest in and to the accompanying application for United States Letters Patent entitled LOW KAPPA, DUAL-MOTE DC FIBER AND OPTICAL TRANSMISSION LINE and executed by **Scott R. Bickham, Gang Qi, David K. Smith and William A. Wood** on **June 30, 2003, June 9, 2003, August 18, 2003 and June 30, 2003**, respectively, appoints the following agents/attorneys to prosecute that application and to transact all business in the Patent and Trademark Office connected therewith:

**Customer Number**  
22928

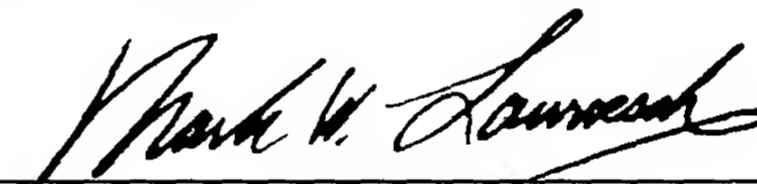
Direct all telephone calls and correspondence to:

Randall S. Wayland  
Corning Incorporated  
SP-TI-03  
Corning, NY 14831  
(607) 974-0463

CORNING INCORPORATED

Date: 9/19/03

By



Mark W. Laurbesch  
Assistant Secretary

**ASSIGNMENT**

FOR VALUE RECEIVED, I, as a below named inventor, hereby sell, assign and transfer unto Corning Incorporated, a corporation organized and existing under the laws of the State of New York, having its principal place of business at Corning, New York, (hereinafter CORNING), as assignee, and unto its successors, assigns and legal representatives, the entire right, title and interest, for all countries, in and to certain inventions relating to a , such inventions being generally described in an application for Letters Patent of the United States executed on

DATE JUNE 30, 2003

DATE JUNE 30, 2003

DATE JUNE 9, 2003

DATE AUGUST 18, 2003

DATE

DATE

and in any future patent applications claiming the benefit of the filing date of that application, and all the rights and privileges under any and all Letters Patents that may be granted therefore.

I request that any and all patents for said inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate.

I agree that, when requested, I will, without charge to CORNING and at CORNING's expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees.

I authorize and empower CORNING, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

I covenant with CORNING, its successors, assigns and legal representatives or nominees, that the rights and property herein conveyed are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

Signed at Corning, NY, this

6-30-03  
Date

6/30/03  
Date

Scott R. Bickham  
Scott R. Bickham

William A. Wood  
William A. Wood

Signed at Milford, CT, this

6/9/03  
Date

Gang Qi  
Gang Qi

Signed at Wilmington, NC, this

8/18/03  
Date

David K. Smith  
David K. Smith

Date

Date

State of New York)

: ss.

County of Steuben)

On the 30 day of June 2003, before me personally came Scott R. Bickham known to be the person described in and who executed the foregoing instrument, and acknowledged that they executed the same.

Christine M. Samson  
Notary Public

CHRISTINE M. SAMSON  
Notary Public, State of New York  
No. 01SA6016665  
Qualified in Steuben County  
Commission Expires November 23, 2006

State of Connecticut)

: ss.

County of )

On the \_\_\_\_ day of \_\_\_\_\_ 2003, before me personally came Gang Qi known to be the person described in and who executed the foregoing instrument, and acknowledged that they executed the same.

\_\_\_\_\_  
Notary Public

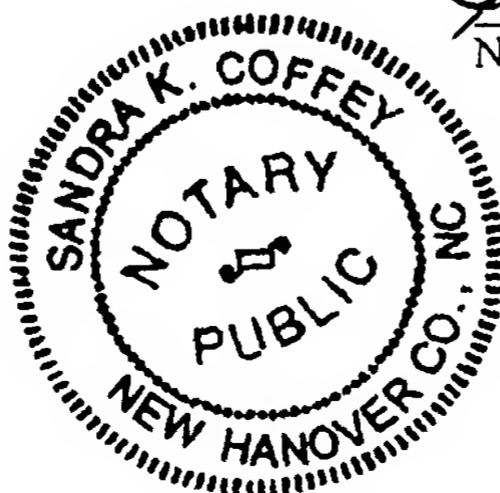
State of North Carolina)

County of New Hanover ss.

On the 18 day of August 2003, before me personally came David K. Smith known to be the person described in and who executed the foregoing instrument, and acknowledged that they executed the same.

Sandra K. Coffey  
Notary Public

3-31-08

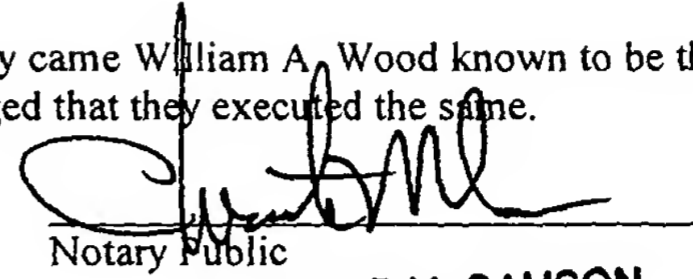


State of New York)

: ss.

County of Steuben)

On the 30 day of June 2003, before me personally came William A. Wood known to be the person described in and who executed the foregoing instrument, and acknowledged that they executed the same.



Notary Public

CHRISTINE M. SAMSON  
Notary Public, State of New York  
No. 01SA6016665  
Qualified in Steuben County  
Commission Expires November 23, 2006